

ANNEX H

**HEALTH
&
MEDICAL SERVICES**

CITY OF HOUSTON

APPROVAL & IMPLEMENTATION

Annex H

Health & Medical Services

ANNEX REDACTED – DATA REMOVED

Annex H
Health & Medical Services

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ANNEX H

HEALTH & MEDICAL SERVICES

I. AUTHORITY

See City of Houston Basic Plan, Volume I.

II. PURPOSE

The purpose of this annex is to provide coordinated public health and medical services during emergency situations to reduce death and injury and to assist in damage assessment and restoration of essential health and medical services within the disaster area.

III. EXPLANATION OF TERMS

Acronyms

AAB	Ambulance Advisory Board
DDC	Disaster District Committee
EMT	Emergency Medical Technician
HCHD	Harris County Hospital District
HCME	Harris County Medical Examiner
H&HSD	City of Houston Health & Human Services Department
HA	Health Authority
TCEQ	Texas Commission of Environmental Quality
TDH	Texas Department of Health

Refer to the City's Basic Plan, Volume I, section 1.3, for additional acronyms used in this annex.

IV. SITUATION & ASSUMPTIONS

A. Situation

1. Residents of the City of Houston are potentially vulnerable to disaster occurrences which could result in a need for emergency health or medical support.
2. The City of Houston Health and Human Services Department (H&HSD) is the local agency primarily responsible for the day-to-day provision of many public health services, and the Harris County Hospital District (HCHD) together with more than 60 private hospitals are responsible for the delivery of medical services.
3. A mass casualty incident that results in a large number of injured persons needing stabilization at the same time and place can lead to a larger number of fatalities unless a pre-designated procedure designed to preserve order and maintain organizational integrity is in place.

B. Assumptions

1. Although many health-related problems are associated with disasters, there is an adequate local capability to meet most disaster situations.

When necessary, support will be available from the Texas Department of Health (TDH) and federal agencies through the District Disaster Committee (DDC).

2. The public will require guidance concerning how best to avoid health hazards created by the disaster or arising from conditions existing in the affected area during the recovery and rehabilitation phase.
3. The private sector, pursuant to prearranged accords, will respond to calls for assistance during a disaster requiring the utilization of their resources.

V. CONCEPT OF OPERATIONS

A. General

Local government has the general responsibility to ensure the welfare of its citizens and to provide appropriate health and medical services during emergency situations.

This annex is based upon the assumption that the emergency functions of the public health, medical and mortuary services will generally parallel their normal day-to-day functions. To the extent possible, the same personnel and material resources will be employed in both cases.

Those day-to-day functions which do not contribute directly to the emergency operation may be suspended for the duration of the emergency. The efforts that would normally be required for those functions will be redirected to the accomplishment of emergency tasks by the agency concerned.

B. Disaster Area Medical Support

1. In disaster situations involving significant damage to Houston's medical capabilities, it is not practical for each hospital pharmacy, emergency medical services coordinator and clinic to report damage needs and/or potential needs independently. Each operational area will report its status and assistance requests to a single contact point designated by the Health Authority (HA) as a control facility or to a coordinator. He will then consolidate the data provided and report to the EOC.
2. The HA must be prepared to receive the consolidated requests and channel the various elements of the request to the segments of the local medical community which can best respond. Requests that exceed local capabilities must be channeled to the Region 2A DDC.

C. Damage Assessment

1. Injuries and Fatalities -- The HA has primary responsibility for gathering information concerning injuries and fatalities resulting from disaster occurrences. Since accurate information concerning casualties is essential in identifying required levels of medical support, information of this type must be forwarded to the DDC as soon as it is available.
2. Water Treatment Facilities -- In cooperation with Public Utilities, the

Texas Commission of Environmental Quality (TCEQ) has responsibility for evaluating damage to water treatment facilities following disaster occurrences. Because of system vulnerability to numerous forms of contamination and because of the impact which prolonged shutdown of water treatment facilities could have on public health and welfare, it is essential that rapid and accurate assessments of damage be completed. Accurate timely estimates for required repairs will permit the TCEQ and the H&HSD to identify appropriate interim measures such as rationing, expedient water treatment, or construction of alternate delivery or treatment facilities.

3. Waste Treatment Facilities -- Waste treatment facilities are vulnerable to disaster-related interruptions and their unavailability can have a major impact on the community's health and well-being. The TCEQ, in cooperation with Public Works, has a responsibility for evaluating damage to those facilities, as well as advising the Executive Group concerning expedient sanitation practices which may be required in the affected area.
4. Medical Facilities -- The HA has primary responsibility for evaluating damage sustained by medical facilities in a disaster area. Support in this activity will be provided by the V.A. Medical Center, Office of Emergency Preparedness. The facility administrator or his designee will gather initial damage reports and identify which patients must be removed pending repairs. This data will be provided to the lead facility to compile for the HA's use.

D. Phases of Management

1. Mitigation

- a. Immunization - (Community and Personal Health Services)
- b. Continuous health inspections
 - (1) food
 - (2) sewage treatment
 - (3) environmental (air and water quality)
 - (4) through coordination with Neighborhood Protection Services
- c. Epidemiological intelligence, evaluation, presentation, and detection of communicable disease
- d. Normal public health awareness programs
- e. Plans are in place for protection of medical and birth/death records
- f. Emergency Medical Services

The City's HA will have access to the medical data base provided by the Office of Emergency Preparedness (OEP) V.A. Medical Center, Houston, Texas. The OEP maintains an agreement with area hospitals to provide medical services in the event of a disaster.

The HA will use this link to coordinate medical resources.

2. Preparedness

- a. Maintenance of medical and sampling supplies and equipment.
- b. Coordinate with County and State officials to insure air, water and food quality.
- c. Coordinate with County and State officials to provide safe waste disposal.
- d. Emergency plans for laboratory activities regarding examination of food and water, diagnostic tests, and identification, registration and disposal of the deceased.

3. Response

- a. Public information programs dealing with personal health and hygiene.
Printed materials are distributed to the public in anticipation of disaster situations.
- b. Disease control operations.
The Bureau of Epidemiology will implement disease control protocols.
- c. Environmental sanitation activities including water disposal, refuse and vector control (in coordination with the Neighborhood Protection Plan).
The Division of Community Standards, Planning and Development Department in conjunction with the HA is prepared to provide appropriate response regarding these concerns.
- d. Potable water supply.
The Division of Environmental Health will respond to problems and inform the public on means to maintain potable water and will respond to air, water and radiation problems.
- e. Consumer health activities regarding food sanitation and safety.
These concerns will be coordinated through the Bureau of Consumer Health Services which will be available to inspect and control sources of emergency food and to insure removal of contaminated food from the supply chain.
- f. Collect Vital Statistics.
The Harris County Medical Examiner (HCME) will report fatalities to the Bureau of Vital Statistics.

4. Recovery

- a. Continue response activities, as needed.

- b. Compile health reports for state and federal officials. Reports will be compiled by the Bureau of Epidemiology.
- c. Identify potential or actual continuing hazards affecting public health and offer appropriate guidance for mitigation of harmful effects.

The Division of Environmental Health will provide continuing evaluation of hazards affecting public health.

This will include evaluation of hazardous materials, protection of air and water quality and assurance of potable water quality through coordination with the Public Utilities group of the Department of Public Works and Engineering, the TDH, and the TCEQ.

VI. ORGANIZATION & ASSIGNMENT RESPONSIBILITIES

A. Organization

The HA for the H&HSD or his/her designee represents the public health and medical services on the Emergency Operations Center (EOC) staff. Response activities will be coordinated from the EOC.

Upon receipt of official notification of an actual or potential emergency condition, it is the responsibility of the HA to receive and evaluate all requests for health and medical assistance and to disseminate such notification to all appropriate public health, medical and mortuary services. In addition, the HA will commit the H&HSD resources.

B. Assignment of Responsibilities

1. The Emergency Medical and Trauma Service of the Houston Fire Department through the Ambulance Advisory Board (AAB) will be primarily responsible for directing and coordinating emergency programs relating to medical operations.
 - a. Existing hospitals and hospital-type facilities. These facilities and their contribution to the abatement of a disaster will be coordinated through the Office of Emergency Medical Preparedness, V.A. Medical Center.
 - b. Emergency treatment station <These
 <activities
 - c. Triage Stations <will be coordinated
 <by the Medical Director
 - d. EMS teams <of the EMS or his designee
 <through the AAB.
 - e. Emergency medical care centers for essential workers in hazardous area.
 - f. Blood Banks, collecting centers and distribution.

Coordination by the CEO of the Gulf Coast Regional Blood Center through the HA.

2. Disaster Area Public Health Support

- a. Administrative Support Division of the H&HSD -- This division, under the direction of the Deputy Director, Support Services, will be primarily responsible for coordinating support of emergency public health programs and for assisting the HA.
- b. Division of Environmental Health and the Planning and Development Department, in conjunction with HA these offices will be primarily responsible for directing and coordinating emergency programs for:

Environmental health activities regarding waste disposal, refuse, and vector control.
- c. Laboratory activities regarding examination of food and water, and diagnostic tests.
- d. The Community Support Division will be primarily responsible for directing and coordinating emergency activities related to:
 - 1) Communicable diseases
 - 2) Animal Control
- e. Mortuary Services -- The HCME has responsibility for the collection, identification, storage, and dispatch of deceased victims after receipt of appropriate permits. He/she will report fatalities resulting from disaster occurrences to the Bureau of Vital Statistics of the HA.
- f. Public Information Officer (PIO) -- has the primary responsibility for dissemination of emergency public health information. The HA has primary responsibility for coordination of health and medical information intended for release through public media during emergency operations with support provided by those public health and medical services responsible for particular aspects of the response.
- g. Direction of the management, distribution and use of health resources (personnel, materials, and facilities) under city control.
- h. Environmental Health has primary responsibility for environmental monitoring and sampling, including health risk assessments, for environmental emergencies.

3. Houston Society for the Prevention of Cruelty to Animals (HSPCA)

The City of Houston and the HSPCA entered into an agreement in July 1997 whereby the HSPCA agreed to coordinate and take immediate action to minimize animal suffering in disaster-response efforts (prior to, during and after, the disaster). See Appendix 5-Animal Disaster Plan.

VII. DIRECTION & CONTROL

A. Under the City of Houston's Emergency Management Plan, the HA has primary responsibility to provide or coordinate the following services in response to emergency situations:

1. Essential medical, surgical and hospital care and treatment for persons whose illnesses or injuries are a result of a disaster or where care and treatment are complicated by a disaster.
2. Public health protection for the affected population.
3. Mortuary and vital records services
4. Damage assessment for public health and medical facilities and systems.
5. Preparation and execution of mutual aid agreements.

To insure that these services are available as needed, the City of Houston's H&HSD has been given primary responsibility by the City Emergency Plan for coordinating the response of various medical and public health services in carrying out selected activities. Those activities, and the services responsible for their accomplishment, are summarized below under Task Assignment.

6. Medical Services

Office of Emergency Medical Services

- o Hospital Bed Availability
- o Assist with "Federal Response Plan" for Emergency Medical staff, Engineering staff

B. Line of Succession

To ensure continuity of public health and medical activities during threatened or actual disasters, the following line of succession is established within the H&HSD:

Director, Assistant Director for Community & Personal Health Services and Assistance Director for Communicable Disease, H&HSD.

VIII. READINESS LEVELS

A. Level 4

1. Review Health and Medical care annexes and SOGs.
2. Review employee duties and assignments.
3. Review inventory of equipment.
4. Review coordination guidelines.

B. Level 3

1. Notify personnel involved in emergency operations.
2. Notify support agencies.

3. Obtain equipment and supplies needed.
- C. Level 2
1. Notify personnel of stand-by status.
 2. Recall essential off-duty employees.
 3. Coordinate with EOC.
- D. Level 1
1. Dispatch representative to EOC.
 2. Mobilize department according to SOP.

Refer to the City of Houston Basic Plan, Volume I, section 3.2.2 for additional information.

IX. ADMINISTRATION & SUPPORT

A. Reporting

Refer to the City of Houston Basic Plan, Volume I, section 3.7.4.

B. Maintenance and Preservation of Records

Duplicate records have been composed and stored at H&HSD. Security provisions are in effect at the location to prevent unauthorized use or access by unauthorized personnel.

C. Post Incident Review

Refer to the City of Houston Basic Plan, Volume I, section 3.9.

D. Exercises

Medical and health services will participate as required in drills and exercises conducted by the City of Houston's Office of Emergency Management (OEM) or DDC. Additional drills and exercises may be conducted by various agencies and services for the purpose of developing and testing abilities to make effective response to various types of emergencies. HDHHS will participate with planning sessions with the Texas Medical Center and other agencies with responsibility for emergency plans.

E. Resources

Refer to VI.B.1 of this annex.

X. ANNEX DEVELOPMENT & MAINTENANCE

The Director of the Houston H&HSD is responsible for initial development and distribution, periodic review and updating and appendices development. Each service with emergency assignments is responsible for developing and maintaining their own appendices and SOGs and for assigning personnel and equipment and providing training necessary to carry out emergency functions. This annex shall be reviewed annually and updated as per section 1.4.4 of the City of Houston Basic Plan, Volume I.

XI. REFERENCES

The following references may be used:

1. Health Department Guidelines Governing Disasters or Emergency Occurrences.
2. Health Department Guidelines Governing Post-disaster Food Protection.
3. Collection of Drinking Water Samples and treatment of Contaminated Supplies.

APPENDICES

Appendix 1	Ambulance and Transportation
Appendix 2.....	Communications and Emergency Power
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Appendix 4.....	Triage
Appendix 5.....	Animal Disaster Plan
Appendix 6.....	State and Federal Medical and Mortuary Assistance

APPENDIX 1

AMBULANCE AND TRANSPORTATION

I. PRE-EMERGENCY

- A. All ambulances and emergency rescue vehicles in Houston, both civilian and military, will be equipped with METTAG's (International Field Triage Tags), furnished by Emergency Management Operations.
- B. All ambulances serving in Houston shall comply with provider regulations of the TDH and the City's H&HSD Office of Emergency Medical Services.
- C. Civilian EMS services shall designate an individual to serve as Triage Officer for its jurisdiction.

II. EMERGENCY

- A. Upon notification of an emergency situation, the appropriate ambulance service shall dispatch the necessary units to the scene.

The ambulance service whose service does not cover the scene will also be notified and will be placed on standby status to respond to the scene if the situation warrants.
- B. The Senior EMT or Paramedic who first arrives on the scene shall:
 - 1. Survey the disaster scene
 - 2. Report to the On-Scene Commander and establish a proper triage area
 - 3. Institute a preliminary screening of casualties and begin stabilizing and transporting those most critically injured as prioritized in the Triage Annex and he/she will record the number of casualties transported and their destination
- C. If the disaster warrants, the EMT will request that other ambulances be dispatched to the scene.
- D. Upon arrival of the EMS Control Officer or Triage Officer, all ambulance service personnel will place themselves at his/her disposal and will follow their directions in regard to casualty movement.
- E. The Senior EMT will report to the Triage Officer and inform him/her as to what guidelines have begun, the location of the triage area, the number of casualties, and the number transported.
- F. The EMS Transportation Officer during the course of the disaster will provide the ambulance personnel with information relative to saturation and/or existing capabilities at the various medical treatment facilities.

APPENDIX 2

COMMUNICATIONS AND EMERGENCY POWER

I. INTRODUCTION

This Appendix was developed to provide general information on existing communications equipment for medical facilities and support agencies allowing them to carry out the function of intercommunications in a coordinated manner during time of emergency or disaster situations.

II. PURPOSE

The purpose of this Appendix is to detail availability of existing communications and emergency electrical power during the time of an emergency. It is supplemented by in-house emergency plans for each participating medical facility or support agency.

III. RESPONSIBILITY AND ORGANIZATION

Prime responsibility for the conduct of communications in support of the plan shall be vested in the Emergency Management Preparedness Coordinator V.A. Hospital.

A. Communications in the Emergency Medical Service and support agencies are:

1. Medical Facilities in Houston are connected by a [REDACTED]

2. EMS services in Houston are equipped to activate [REDACTED]

3. EOC/Mobile Command Post – [REDACTED]

B. Telephone Numbers:

[REDACTED] - City of Houston - Deputy Coordinator Emergency Management
713/884-4500

[REDACTED]
Harris County Medical Examiner - 713/796-9292

IV. DIRECTION AND CONTROL

Communications, used in an emergency situation, is a support function. Operators, dispatchers, messengers and others assigned duties in communications will take their direction and control as defined in appropriate Annexes located elsewhere in this Plan.

APPENDIX 3

MORGUE SERVICES

I. RESPONSIBILITY

The HCME is responsible for the collection, identification, storage and dispatching of deceased victims.

II. DIRECTION AND CONTROL

The direction and control of guidelines in relation to the care of deceased victims shall follow the chain of command listed below:

- A. HCME
- B. City Health Officer
- C. Designated local Funeral Home Director
- D. Military Mortuary Affairs Officer

III. GENERAL GUIDELINES

- A. Collection
 - 1. The HCME shall be notified immediately in the event of an emergency situation and shall deploy appropriate staff to the scene.
 - 2. Collection of victims on scene, from hospitals and other designated collection points shall be accomplished through the use of enclosed vehicles; e.g. funeral coaches.
 - 3. Victims will be taken to designated identification points as dispatched by the HCME's Office.
- B. Identification
 - 1. Identification of victims shall be made by use of accepted forensic methods by the HCME and supplement by:
 - a. Funeral home personnel
 - b. Other Medical Examiners and their staffs
 - 2. If circumstances warrant, the HCME shall also be assisted in the positive identification of victims by:
 - a. Special agents of the Federal Bureau of Investigation (FBI)
 - b. Military mortuary affairs personnel
- C. Interment
 - 1. Upon positive identification of victims, bodies will be released to funeral homes specified by the deceased individual's family.

APPENDIX 4

TRIAGE

I. PRE-EMERGENCY

- A. All ambulances and emergency rescue vehicles in Houston will be equipped with METTAG's (International Field Triage Tags). These tags will be furnished by Emergency Management Operations.
- B. All ambulances serving in Houston shall comply with provider regulations as specified by the TDH, and the City's H&HSD's Office of Emergency Medical Services.
- C. Medical supplies for providing advances life support to trauma victims will be stored in a major rescue vehicle, trailer, or every responding service will bring a predetermined mass casualty supply package. Adequate supplies for treatment of six victims requiring advances life support will be stored in the rescue vehicle and mobilized to the scene of a mass casualty disaster. These supplies will be furnished by area hospitals and the stock rotated through said hospitals to prevent expiration of sterility.

II. EMERGENCY

- A. It is the responsibility of the Emergency Medical Technician (EMT) who first arrives on the scene to institute a triage, confer with the nearest emergency department physician, and to implement action that may be necessitated by the situation.
- B. The nearest hospital with emergency facilities will be notified immediately that a mass casualty disaster may have occurred.
- C. The Emergency Medical Director shall respond to the scene during medical disaster and shall act as liaison between the on-scene commander and EMS. He is in charge of patient care, triage, transportation and all EMS personnel. He is responsible for formal declaration of a medical disaster.
- D. The Triage Officer shall respond immediately to the scene of a local disaster. He/she is in charge of sorting patients to establish priorities of treatment and transportation. He/she is also in charge of the care of patients awaiting transportation.
- E. The Transportation Officer is in charge of all ambulances and directs the loading and transportation of patients. He/she acts as liaison with the field and hospitals.
- F. Registered nurses and paramedics employed with local ambulance services and capable of providing advanced life support in the field will respond immediately to the disaster site. They will work the Triage Officer and apply their skills as required to disaster victims.
- G. Equipment and medication for administering advances life support to trauma victims will be transported to the scene by the assigned rescue unit. Additional supplies will be obtained from local hospitals upon request.

H. Triage Priorities

Patients with certain conditions or injuries have priority for transportation and treatment over others. An outline of these conditions is as follows:

The following outlines the conditions:

1. Red Category - First Priority, (Most Urgent)
 - a. Airway and breathing difficulties
 - b. Uncontrolled or suspected severe bleeding
 - c. Shock
 - d. Open chest or abdominal wounds
 - e. Severe head injuries
 - f. Severe medical problems: poisoning, diabetes with complications, cardiac disease
 2. Yellow Category - Second Priority, (Urgent)
 - a. Burns
 - b. Major or multiple fractures
 - c. Back injuries with or without spinal damage
 3. Green Category - Third Priority (Non-Urgent)

Transportation and treatment is required for minor injuries but not necessarily by EMS personnel; minor fractures or other injuries of a minor nature.
 4. Black Category - (Decreased - Non-Urgent)
 - a. Cardiac arrest
 - b. Obviously deceased
- I. The triage tag should be placed around the patient's neck and the appropriate flap removed so as to indicate the priority by the last remaining flap. Any medications administered prior to the patients' arrival at the hospital should be indicated on the triage tag. Should the receiving hospital decide to institute its own disaster tag upon the patient's arrival, the original triage tag should be retained with the hospital disaster tag.
- J. A separate category of triage should also be noted, as it supersedes all others. Patients who have undergone radiation contamination and are themselves carrying radiating particles must be decontaminated as an initial step. EMS Radiological Incident SOGs contain instructions for treatment of victims of radiation contamination.

III. DIRECTION AND CONTROL

The direction and control of guidelines in relation to the care of injured victims shall follow the chain of command detailed below:

- A. Emergency Medical Director
- B. Triage Officer
- C. EMS Transportation Officer
- D. Senior Ranking EMT
- E. Ambulance Provider

APPENDIX 5

Animal Disaster Plan

Copies of the Agreement between the City of Houston and the Houston Society for the Prevention of Cruelty to Animals (HSPCA) and the HSPCA's Disaster Plan referenced in the Agreement are on file in the City's H&HSD and the OEM.

APPENDIX 6

STATE AND FEDERAL MEDICAL AND MORTUARY ASSISTANCE

I. Medical and Mortuary Assistance

A. Texas Department of Health (TDH). When requested by local officials, the TDH can provide health and medical advice and assistance during emergency situations from its various regional offices.

B. Disaster Medical Assistance Team (DMAT)

1. DMAT is a group of volunteer medical professionals and support personnel equipped with supplies and equipment that can be moved quickly to a disaster area and provide medical care. DMATs are a part of the National Disaster Medical System (NDMS). The DMAT concept involves using volunteer medical professionals to provide emergency services to victims of disasters. Each DMAT is an independent, self-sufficient team that can be deployed within a matter of hours and can set up and continue operations at the disaster site for up to 72 hours with no additional supplies or personnel. The 72-hour period allows federal support, including medical supplies, food, water, and any other commodity required by the DMAT to arrive.

2. TX-1 DMAT is a federal and state response asset based in Texas. TX-1 DMAT can be activated by the State to respond to emergency events that may not be severe enough to warrant a federal response. Working closely with TDH, TX-1 DMAT can serve as a state-level responder to major emergencies and disasters that require additional medical response resource.

3. Disaster Mortuary Services Team (DMORT)

The Texas DMORT provides mortuary and victim identification services following major or catastrophic disasters. The team is comprised of volunteer professionals from the mortuary and funeral industries.